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EXAMINER

LUKTON, DAVID

ART UNIT	PAPER NUMBER
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1653

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/725,030

Applicant(s)

DAVIS ET AL.

Examiner

David Lukton

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003 and 28 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4 and 8-24 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,22 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Pursuant to the directives of the amendment filed 12/9/03, claims 5-7 have been cancelled, claim 4 amended, and claims 8-24 added. In addition, the letter filed 1/28/04 indicates that claims 23 and 24 have been submitted as replacements for claims 1 and 2, respectively.

This implies that the characterization of claims 1 and 2 (in the response filed 12/9/03) as being "deleted mistakenly" should be taken as a directive to simply cancel claims 1 and 2.

Thus, claims 1 and 2 have been cancelled in addition to claims 5-7. As for claim 3, there are conflicting directives regarding the disposition of this claim. On page 2, paragraph 1 of the response filed 12/9/03, it is stated, in reference to claims 3 and 4 that "we request that these claims remain in the application". On the following line of text, there is a directive to amend claim 3 (along with claim 4), although there is no specific replacement claim (for claim 3) presented. On the following line of text (page 2 of the response filed 12/9/03) the following is stated:

"we request that claim 3 is deleted..."

Then on page 3 of the response filed 12/9/03) the following is stated:

"we request that claim 3 remain in the application"

Thus, there is one directive to amend claim 3, one directive to cancel claim 3, and two directives to leave claim 3 unamended. Accordingly, given the contradictory directives

with respect to claim 3, this claim (claim 3) will be regarded as still pending. That being the case, claims 3, 4, and 8-24 are regarded as pending.

Claims 3, 4, 22 and 24 are withdrawn from consideration pursuant to the initial restriction.

At the time of the first Office action, only claims 3-7 were pending (response filed 10/18/01). The broadest claim was claim 3, which was drawn to "a tubulin ligand that

causes a G1/S phase arrest mechanism." This is essentially what (currently pending) claim

8 recites; claim 8 is examined in this Office action. However, there was no genus of

claims that was described in terms of a "Bcl1 phosphorylation phase", and no mention of a

"phosphorylation phase" in the claims. There was also no genus of claims drawn to

compounds that "covalently bind to tubulin". These genera are separate and distinct from

those described at the time of the first Office action on the merits (mailed 12/27/01), and so

these claims (3, 4, 22 and 24) are withdrawn from consideration.

Claims 8-21 and 23 are examined in this Office action.

Applicants' arguments filed 12/9/03 have been considered and found not persuasive.



The following is a quotation of the first paragraph of 35 U.S.C. §112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 9-21 recite various phrases as follows:

- Claim 9 recites the phrase: “tumor volume reduction of prostate cancer in a model organism”
- Claim 10 recites the phrase: “cures prostate cancer in 20% of cases in a model organism”.
- Claim 11 recites the phrase: “selective cell death of T-cell Leukemia cancer cells”
- Claim 12 recites the phrase: “selective cell death of Myelodysplasia syndromes cell types”
- Claim 13 recites the phrase: “selective cell death of Melanoma cells”.
- Claim 15 recites the phrase: “selective cell death of renal cancer cells”
- Claim 16 recites the phrase: “selective cell death of Breast Cancer cells”.
- Claim 17 recites the phrase: “selective cell death of Non- small Cell Lung Cancer cells”.
- Claim 18 recites the phrase: “causes selective cell death of colon cancer cells”.
- Claim 19 recites the phrase: “selective cell death of lymphoma wild type cancer cells”
- Claim 20 recites the phrase: “causes selective cell death of lymphoma MDR negative cancer cells”

- Claim 21 recites the phrase: “does not cause cell death of normal lymphocytes when added to a culture of these cells at the ID90 dose of lymphoma”.

However, there does not appear to be descriptive support for any of these phrases.

In the case of claims 9-10, there is some descriptive support on page 13, paragraph 2.

The term “model organism” is used, and there is an assertion that administration of IAABE to mice resulted in a successful therapy in 20% of cases. However, while there may be descriptive support for rendering 20% of **mice** tumor-free, there does not appear to be support for rendering 20% of any “model organism” tumor-free. The skilled artisan would not necessarily expect the same success rate in mice, chimpanzees, kangaroos and goats. Nor is there any indication of which animals would qualify as “model organisms”.

As for claim 19, it is noted that the term “lymphoma” is recited on page 1, third line from last, but this is in connection with compounds that are not being claimed. In addition, on page 12, third line from last, reference is made to “Daudi/wt” cells.

However, this does not amount to a description of any and all “wild type cells”, nor does it amount to a description of “selective cell death”

As for claim 20, it is noted that on page 12, third line from last, reference is made to “Daudi/MDR” cells. However, this does not amount to a description of “lymphoma MDR negative cancer cells”, and does not amount to a description of “selective cell

death”.

Descriptive support is lacking for the remaining claims as well.



Claims 8-21, 23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,294,695. Although the conflicting claims are not identical, they are not patentably distinct from each other.

In the response filed 12/9/03, it is argued that the mechanism of action of the claimed compounds is novel, and that it is not possible to predict the mechanism of a drug in advance of experimentation. The response also argues that the examiner's previous argument (Office action mailed 6/24/03) regarding inherency is not correct. It is argued that the (now) asserted properties of the compound IAABE cannot be inherent (in the previous disclosure of this compound) because “that would be based on a prediction. The prediction being M phase arrest which is not the case for IAABE which causes G1/S arrest”.

The examiner's first point is to acknowledge that the compound *meta*-iodoacetamido benzoyl ethyl ester is not explicitly recited (as an individual specie) in US Patent 6,294,695. However, (a) the compound in question is encompassed by the disclosed genus (of USP '695) and (b) the genus disclosed in USP '695 is quite small, so all members of the genus are rendered obvious. Given the very small size of the disclosed genus, *In re Baird* (29

USPQ2d 1550, 1994) would not preclude a rejection in this case. The second point is that the claims are not drawn to a mechanism; rather, they are drawn to compounds. This is especially true of claim 23 (and those claims which are also drawn to the compound recited in claim 23), which is drawn to a compound having a fully defined structure. Whatever properties exist for the compound iodine acetamido benzoyl ethyl acetate when in the hands of one scientist will necessarily, always and inevitably exist when in the hands of another scientist. If a scientist asserts that a given compound exhibits a given property, and if that scientist's assertion is correct, it would be impossible for anyone to "prevent" the compound from having the asserted property. The fact that a given property may be unrecognized at a given point in time does not mean that the property is not possessed by the compound. Given that the claims are drawn to compounds, and that they encompass specific compounds that are disclosed in the patent, the rejection based on inherency is valid.

A third point concerns claim 8. This claim encompasses the compound iodine acetamido benzoyl ethyl acetate, but is not limited to this compound. In particular, other *alpha*-halo acetamido benzoyl ethyl acetates would be encompassed, as indicated by the specification, and by the claims and arguments presented in the response filed 2/27/03. All three such compounds (*alpha*-chloro, *alpha*-bromo and *alpha*-fluoro derivatives) are rendered obvious by USP '695, and this claim would be rendered obvious even if the *alpha*-iodo compound

were specifically excluded.

The rejection is maintained.

The obviousness-type double patenting rejection is a judicially established doctrine based upon public policy and is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinct from claims in a first patent. In re Vogel, 164 USPQ 619 (CCPA 1970). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) would overcome an actual or provisional rejection on this ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d)



Claims 9-21, 23 are rejected under 35 U.S.C. §112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Each of claims 9-21 is dependent on a cancelled claim. (Dependence on claim 23 is assumed).
- In each of claims 9-21, the phrase "the medicinal drug" lacks antecedent basis in both claims 1 and 23.
- In each of claims 9-21, the term "the medicinal drug" is used. However, this term appears to be redundant, since all drugs are "medicinal"
- Claim 16 recites the phrase: "selective cell death of Breast Cancer cells". However, there appears to be no reason to capitalize the first letter of the word "Breast" or "Cancer". Similarly, in claim 18, there appears to be no reason to capitalize the first letter of the word "Colon" or "Cancer".
- Claim 23 recites the chemical name "iodine acetamido benzoyl ethyl acetate". However, this name is incomplete. The position of the iodine atom is not specified, and the regiochemistry of the two phenyl substituents (carboxyethyl and

iodoacetamido) about the phenyl ring is not specified (i.e., ortho, meta or para)



The following is a quotation of the appropriate paragraphs of 35 U.S.C §102 that form the basis for the rejections under this section made in this action.

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim 8 is rejected under 35 U.S.C. §102(a) as being anticipated by Jiang (*Cancer Research* **58**, 2126, 1998).

As indicated previously, Jiang discloses (table 1, page 2127) the compound designated "3-BAABE". This compound falls within the scope of the genus of compounds depicted in figure 1a of the instant application. Jiang discloses that this compound induces apoptosis.

The response filed 12/9/03 makes essentially the following three arguments: (a) IAABU is not the same as IAABE, (b) the compound IAABE was not disclosed prior to December of 1999, and (c) one cannot predict the mechanism of a compound in advance of experimentation.

The foregoing arguments are moot, however, since this rejection is not directed at the compound IAABE. Instead, it is directed at the compound 3-BAABE, which is disclosed in table I on page 2127 of Jiang (*Cancer Research* volume **58**, issued in 1998), and which

has the following structure (*meta*-substitution):



Accordingly, the arguments regarding IAABE are not relevant. As indicated in the specification, and the arguments filed 2/27/03, all four *alpha*-halo acetamido benzoyl ethyl acetates are encompassed by claim 8. And as discussed above (the obviousness double patenting rejection), the properties now asserted are inherent in this compound, even though those properties may not have been disclosed in Jiang.

The rejection is maintained.



The following is a quotation of 35 USC §103 which forms the basis for all obviousness rejections set forth in the Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made, absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103.

Claim 8 is rejected under 35 U.S.C. §103 as being unpatentable over Jiang (*Anti-cancer Drug Design* **13**, 735, 1998) in view of Alberts (*The Molecular Biology of the Cell*, 2nd Ed., 1989, pages 727 - 786).

As indicated previously, Jiang discloses that compounds 6-9 (page 736) induce mitotic arrest. Jiang does not disclose that, as a consequence of inducing mitotic arrest, the transition of a cell from the "G1" phase to the "S" phase will also be inhibited. Alberts discusses the processes involved in cell division and discloses (e.g., page 728 and 729) that the cell cycle may be represented as follows:

$$G1 \rightarrow S \rightarrow G2 \rightarrow M \rightarrow G1 \rightarrow \text{etc.}$$

That is, beginning with e.g., G1, the next phase is "S"; this is followed by G2, which is followed by "M", which is followed once again by G1. The point is that this is a cycle. If any one "phase" or section of the cycle is inhibited, then all other phases of the cycle must be inhibited as well. If, for example, a given agent inhibits the G2→M transition, or the M→G1 transition of a given population of cells, the number of cells which will undergo the G1 → S transition will be decreased. If, in a single cell, the G2→M transition or the M→G1 transition is blocked entirely, then that cell will stop undergoing the G1/S transition.

The response filed 12/9/03 argues the following (paraphrased slightly):

The cell cycle operates differently from a mechanically linked system. The cell cycle is unlike that of a clock's gearing system, wherein if one cog is forcefully stopped then all other cogs will be stopped as well. In the case of the cell cycle, stopping at

the M-phase will not stop or eliminate G1, S or G2 phases. The Cell Cycle will pass through these phases and the cells will accumulate in M-phase.

As indicated above, it is argued, on the one hand, that stopping at the M-phase will not stop or eliminate the G1, S or G2 phase, but that, on the other hand, the cell cycle will accumulate in the M-phase. However, these two arguments appear on the surface to be contradictory. If a cell is "stopped" in the M-phase, it is not apparent how it can continue to proceed through the G1 phase, or the S phase or the G2 phase. No explanation is offered as to how a single cell could be "stopped" in the M-phase, yet continue to proceed through the G1 phase, or the S phase or the G2 phase. Perhaps what is intended is that if an agent is effective to stop a cell at the M phase, but which agent is not also effective to instantaneously or simultaneously stop the G1 phase, the S phase or the G2 phase, then this would amount to a failure of the agent to inhibit the transition from the G1 phase to the S phase. An analogy is offered (response filed 12/9/03) by comparing the cell cycle to a car with an automatic transmission. While noting that an analogy can be a useful first step in an argument, it is not apparent exactly how a car with an automatic transmission is intended to be related to a cell. One could make another automobile analogy, i.e., if the driver of a car with a manual transmission places the car in gear, accelerates to a given speed (e.g., 30 mph), and applies the brakes, the car will slow to a stop, and the engine will stop as well (if the transmission remains in

gear). This analogy is relevant in the sense that if the brakes are applied to a car which is traveling at a speed of 30 mph, the car will not stop immediately (nor will the engine), but instead will require a distance of several feet for deceleration to occur. Similarly, in the cell cycle, inhibition of the M/G1 transition will not necessarily stop, at the same instant, all processes associated with the G1, S or G2 phases. However, ultimately, transition through these phases will stop. It appears that the response admits this to be the case by stating that "the Cell Cycle will pass through these phases and the cells will accumulate in M-phase". Moreover, this admission is consistent with what is stated on page 731 of Alberts. It appears to be the case that the response is arguing that implicit in claim 8 is the limitation that the G1/S arrest occurs without first arresting at the M-phase. However, this is not what the claim states. Nor is there any requirement that the cells within a population accumulate in the G1 phase or the S-phase. The claims, in fact, are silent as to whether arrest in a single cell is intended, or arrest in a population of cells. Accordingly, one can interpret the claims to include either one of these possibilities. The cell biologist of ordinary skill would conclude that if, as a consequence of contacting an agent with a single cell, or with a population of cells, transition from the G1 to S phase is inhibited or arrested, the agent in question is indeed effective to prevent or inhibit transition of at least one cell from the G1 phase to the S phase. Whether the process of arrest ($G1 \rightarrow S$) requires 10 minutes or 10 hours or 10

days, the requirements of the claims are still met.

The response also makes reference to a population of cells, and the consequence of contacting the population of cells with one of the claimed compounds. As indicated above, the claims do not require that one start with a population of cells, and the claims do not require that all cells within a population behave in the same way. But even if the claims had recited that the compound is effective to inhibit the G1/S transition in a population of cells, this ground of rejection would still be justified. By the admission in the response filed 12/9/03, a compound which inhibits the $M \rightarrow G1$ transition will cause accumulation of cells in the M phase. Cells which are in the M phase will not be undergoing transition from G1 to S. To put it another way, it would have been obvious to a cell biologist of ordinary skill that the compounds of Jiang will inhibit all of the following transitions:

$G1 \rightarrow S$

$S \rightarrow G2$

$G2 \rightarrow M$ and

$M \rightarrow G1$

The rejection is maintained.

◇

Claim 8 is rejected under 35 U.S.C. §103 as being unpatentable over Abraham I. (*Proc Natl. Acad. Sci.* 83, 6839-43, 1986) in view of Alberts (*The Molecular Biology of the Cell*, 2nd Ed., 1989, pages 727 - 786).

As indicated previously, Abraham discloses that DCBT inhibits mitosis and inhibits polymerization of microtubules. Abraham does not disclose that, as a consequence of inhibiting mitosis, the transition of a cell from the "G1" phase to the "S" phase will also be inhibited. Alberts discusses the processes involved in cell division and discloses (e.g., page 728 and 729) that the cell cycle may be represented as follows:

$$G1 \rightarrow S \rightarrow G2 \rightarrow M \rightarrow G1 \rightarrow \text{etc.}$$

The response filed 12/9/03 does not traverse this rejection separately from the §103 rejection over Jiang, and so the arguments presented above (the §103 rejection over Jiang) are incorporated by reference herein.

The rejection is maintained.



Claim 8 is rejected under 35 U.S.C. §103 as being unpatentable over Sorger P.K. (*Curr Opin Cell Biol.* 9, 807-814, 1997) in view of Alberts (*The Molecular Biology of the Cell*, 2nd Ed., 1989, pages 727 - 786).

As indicated previously, Sorger discloses various compounds that inhibit microtubule

polymerization, resulting in cell cycle delay or apoptosis. Sorger does not disclose that, as a consequence of inducing apoptosis or delaying the cell cycle, the transition of a cell from the "G1" phase to the "S" phase will be inhibited, or eliminated altogether. Alberts discusses the processes involved in cell division and discloses (e.g., page 728 and 729) that the cell cycle may be represented as follows:

$$G1 \rightarrow S \rightarrow G2 \rightarrow M \rightarrow G1 \rightarrow \text{etc.}$$

The response filed 12/9/03 does not traverse this rejection separately from the §103 rejection over Jiang, and so the arguments presented above (the §103 rejection over Jiang) are incorporated by reference herein.

The rejection is maintained.



Claim 8 is rejected under 35 U.S.C. §103 as being unpatentable over Jordan (*Current Opinion in Cell Biology* 10 (1) 123-30, 1998) in view of Alberts (*The Molecular Biology of the Cell*, 2nd Ed., 1989, pages 727 - 786).

As indicated previously, Jordan discloses various agents which inhibit mitosis. Jordan does not disclose that, as a consequence of inhibiting mitosis, the transition of a cell from the "G1" phase to the "S" phase will also be inhibited. Alberts discusses the processes involved in cell division and discloses (e.g., page 728 and 729) that the cell cycle may be

represented as follows:

$$G1 \rightarrow S \rightarrow G2 \rightarrow M \rightarrow G1 \rightarrow \text{etc.}$$

The response filed 12/9/03 does not traverse this rejection separately from the §103 rejection over Jiang, and so the arguments presented above (the §103 rejection over Jiang) are incorporated by reference herein.

The rejection is maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED AND ANY EXTENSION FEE PURSUANT TO 37 CFR 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

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No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lukton whose telephone number is 571-272-0952. The examiner can normally be reached Monday-Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low, can be reached at 571-272-0951. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

D. Lukton 3/30/04

Christopher S. Low
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